

9-26 EPOXY RESINS**9-26.1 Epoxy Bonding Agents****9-26.1(1) General**

Epoxy bonding agents shall be 2-component epoxy resin-base systems that meet the requirements of ASTM C 881, shall be furnished in the type, grade, and class specified, and shall meet the requirements below. When not specified, an appropriate grade and class shall be selected for the particular application. Epoxy bonding agents for patching external concrete shall be concrete-gray in color.

9-26.1(1)A Type I and Type IV

Epoxy bonding agents used for bonding hardened concrete to hardened concrete and other materials shall be Type I for non-load bearing applications and Type IV for load bearing applications.

9-26.1(1)B Type II and Type V

Epoxy bonding agents used for bonding freshly mixed concrete to hardened concrete shall be Type II for non-load bearing applications and Type V for load bearing applications.

9-26.1(1)C Type III

Epoxy bonding agents used for bonding skid-resistant materials to hardened concrete and as a binder in epoxy mortars and epoxy concretes used on traffic bearing surfaces shall be Type III.

9-26.1(2) Packaging and Marking

The components of the epoxy system furnished under these Specifications shall be supplied in separate containers that are non-reactive with the materials contained. The contents of each container shall be such that when the container contents are combined, a properly proportioned final mixture results.

Containers shall be identified as “Component A” (Contains the Epoxy Resin) and “Component B” (Contains the Curing Agent) and shall show the type, grade, class and mixing directions as defined by these Specifications. Each container shall be marked with the name of the manufacturer, the lot or batch number, the date of packaging, and the quantity contained in pounds or gallons.

Potential hazards shall be so stated on the package in accordance with the Federal Hazardous Products Labeling Act and State of Washington, Department of Labor and Industries Regulations for Shipment of Hazardous Products.

9-26.1(3) Certification

If requested by the Contracting Agency, the manufacturer of the epoxy system shall certify that components A and B meet the requirements of this Specification before a sample will be accepted for testing by the Contracting Agency. The Manufacturer’s Certificate of Compliance shall be furnished in accordance with Section 1-06.3.

9-26.1(4) Rejection

Except as noted otherwise, the entire lot of both components may be rejected if samples submitted for test fail to meet any requirements of this Specification.

9-26.1(5) Acceptance

Acceptance of the Epoxy Bonding Agents for use on the project shall be based on a passing test report from the State Materials Laboratory.

9-26.2 Epoxy Adhesive for Lane Markers**9-26.2(1) General**

Epoxy adhesives for lane markers shall meet the requirements of AASHTO M 237 for Type II - Standard Setting, High Viscosity, Epoxy Adhesive. In lieu of the square base test specimen molds for the Slant Shear Strength test specified in AASHTO M 237, cylindrical molds in accordance with ASTM C882 may be used.

9-26.2(2) Packaging and Marking

Packaging and Marking of Epoxy Adhesive for Lane Markers shall meet the requirements of Section 9-26.1(2).

9-26.2(3) Certification

Certification of Epoxy Adhesive for Lane Markers shall meet the requirements of Section 9-26.1(3).

9-26.2(4) Rejection

Rejection of Epoxy Adhesive for Lane Markers shall meet the requirements of Section 9-26.1(4).

9-26.2(5) Acceptance

Acceptance of each lot of the Epoxy Adhesive for Lane Markers for use on the project shall be based on a Manufacturer's Certificate of Compliance.

9-26.3 Epoxy Grout/Mortar/Concrete**9-26.3(1) General**

This Specification shall apply to epoxy grout, epoxy mortar and epoxy concrete for traffic and non-traffic bearing applications. Epoxy grout/mortar/concrete shall consist of an epoxy bonding agent and an aggregate component.

Prepackaged epoxy grout/mortar/concrete shall be prepared from a ready-to-mix epoxy bonding agent/aggregate system supplied by a manufacturer in kit form.

Non-prepackaged epoxy grout/mortar/concrete shall be prepared from an epoxy bonding agent and an aggregate component that is clean, surface dry and inert and that is of a quality and gradation suitable for Portland cement mortar or concrete. Aggregate meeting the requirements of Section 9-03.1(2) will be satisfactory. Epoxy grout/mortar/concrete for patching external concrete shall be concrete-gray in color.

9-26.3(1)A Traffic Bearing Applications

Epoxy grout/mortar/concrete for traffic bearing applications shall have a seven-day compressive strength of not less than 2500 psi when tested in accordance with ASTM C579. Epoxy bonding agent shall be Type III as described in Section 9-26.1(1)C.

9-26.3(1)B Non-Traffic Bearing Applications

Epoxy grout/mortar/concrete for non-traffic bearing applications shall have a seven-day compressive strength of not less than 4000 psi when tested in accordance with ASTM C579. Epoxy bonding agent shall be Type I, II, IV, or V as appropriate for intended use as described in Section 9-26.1(1)A and Section 9-26.1(1)B.

9-26.3(2) Packaging and Marking

Packaging and Marking of the epoxy bonding agent component of epoxy grout/mortar/concrete shall meet the requirements of Section 9-26.1(2).

9-26.3(3) Certification

Certification of the epoxy bonding agent component of epoxy grout/mortar/concrete shall meet the requirements of Section 9-26.1(3).

9-26.3(4) Rejection

Rejection of the epoxy bonding agent component of epoxy grout/mortar/concrete shall meet the requirements of Section 9-26.1(4).

9-26.3(5) Acceptance

Acceptance of the epoxy grout/mortar/concrete material for use on the project shall be based on a passing test report from the State Materials Laboratory.